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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
2131	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	09/981,182	SCHNIZLEIN ET AL.
	Examiner	Art Unit
	Aravind K. Moorthy	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>16 November 2006</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,3-8,10,11 and 26-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1,3-8,10,11 and 26-38</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>16 October 2001</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the amendment filed on 16 November 2006.

2. Claims 1, 3-8, 10, 11 and 26-38 are pending in the application.

3. Claims 1, 3-8, 10, 11 and 26-38 have been rejected.

4. Claims 2, 9 and 12-25 have been cancelled.

Information Disclosure Statement

5. The examiner has considered the information disclosure statement filed on 5 September 2006.

Response to Amendment

6. The examiner approves of the amendment made to claim 28. However, the amendment does not overcome the rejection under 35 U.S.C 101. After a careful review of the specification, the computer-readable medium includes a carrier wave. The carrier wave is non-statutory subject matter.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3-8, 10, 11 and 26-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 28 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 28 is directed towards a computer-readable medium carrying one or more sequences of instructions for assigning a network address to a host based on authentication for a physical connection between the host and an intermediate device. The examiner refers the applicant to the specification (page 30, lines 8-15). The applicant claims the term "computer-readable medium" as a medium that may take form of a transmission media. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). Such a result would exalt form over substance. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under Sec.

101, the claimed invention, as a whole, must be evaluated for what it is.") (quoted with approval

in Abele, 684 F.2d at 907, 214 USPQ at 687).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1, 3, 6, 7, 9-11, 26-30, 32-35, 37 and 38 are rejected under 35 U.S.C. 102(e) as

being anticipated by Freund et al US 2003/0055962 A1.

As to claim 1, Freund et al discloses a method of assigning a network address to a host

based on authentication for a physical connection between the host and an intermediate device,

the method comprising the computer-implemented steps of:

receiving, at a router hosting an authenticator process for the host, from a

first server that provides authentication and authorization, in response to a request

for authentication for the physical connection, first data indicating at least some of

authentication and authorization information [0145];

receiving, at a DHCP relay agent process of the router, from the host, a

DHCP discovery message for discovering a logical network address for the host

[0150-0151];

generating at the DHCP relay agent process a second message that

comprises the DHCP discovery message and the first data [0150-0151]; and

       sending the second message from the DHCP relay agent process to a

DHCP server that provides the logical network address for the host [0150-0151].

       wherein generating the second message further comprises the step

of sending a third message, from the authenticator process to the relay

agent process, that contains at least some of the authentication and

authorization information based on the first data [0150-0151].

As to claims 3, 29 and 34, Freund et al discloses a method as recited, wherein:

       step of generating the second message further comprises the steps of:

       storing second data based on the first data by the authenticator

process [0150-0151]; and

       retrieving the second data by the relay agent process in response to

the step of receiving the first message [0150-0151].

As to claim 6, Freund et al discloses that the physical connection comprises an Ethernet

interface card on the router [0098].

As to claims 7, 30 and 35, Freund et al discloses that the physical connection comprises a

wireless Ethernet encryption key and time slot [0088].

As to claim 9, Freund et al discloses that the second message is based on a dynamic host

configuration protocol (DHCP) [0122].

As to claims 10, 32 and 37, Freund et al discloses that the first data includes user class

data indicating a particular group of one or more authorized users of the host [0102]. Freund et

al discloses that the step of generating the second message is further based on the user class data

[0102].

As to claims 11, 33 and 38, Freund et al discloses a method as recited, wherein:

the first data includes credential data indicating authentication is

performed by the first server [0150-0151], and

the step of generating the second message is further based on the

credential data [0150-0151].

As to claim 26, Freund et al discloses an apparatus for assigning a network address to a

host based on authentication for a physical connection between the host and an intermediate

device, comprising:

means for receiving, at a router hosting an authenticator process for the

host, from a first server that provides authentication and authorization, in response

to a request for authentication for the physical connection, first data indicating at

least some of authentication and authorization information [0145];

means for receiving, at a DHCP relay agent process of the router, from the

host, a DHCP discovery message for discovering a logical network address for the

host [0150-0151];

means for generating at the DHCP relay agent process a second message

that comprises the DHCP discovery message and the first data [0150-0151]; and

means for sending the second message from the DHCP relay agent process

to a DHCP server that provides the logical network address for the host [0150-

0151];

wherein generating the second message further comprises the step

of sending a third message, from the authenticator process to the relay

agent process, that contains at lest some of the authentication and

authorization information based on the first data [0150-0151].

As to claim 27, Freund et al discloses an apparatus for assigning a network address to a

host based on authentication for a physical connection between the host and an intermediate

device, comprising:

a network interface that is coupled to a data network for receiving one or

more packet flows therefrom [0098];

a physical connection that is coupled to the host [0098];

a processor [0098];

one or more stored sequences of instructions which, when executed by the

processor, cause the processor to carry out the steps of:

receiving, at an authenticator process for the host, through the

network interface from a first server that provides authentication and

authorization, in response to a request for authentication for the physical

connection, first data indicating at least some of authentication and

authorization information [0145];

receiving, at a DHCP relay agent process, through the physical

connection from the host, a DHCP discovery message for discovering a

logical network address for the host [0150-0151];

generating at the DHCP relay agent process a second message that

comprises the DHCP discovery message and the first data [0150-0151];

and

sending through the network interface the second message from
the DHCP relay agent process to a DHCP server that provides the logical
network address for the host [0150-0151];

wherein generating the second message further comprises the step
of sending a third message, from the authenticator process to the relay
agent process, that contains at least some of the authentication and
authorization information based on the first data [0150-0151].

As to claim 28, Freund et al discloses a computer-readable storage medium carrying one
or more sequences of instructions for assigning a network address to a host based on
authentication for a physical connection between the host and an intermediate device, which
instructions, when executed by one or more processors, cause the one or more processors to
carry out the steps of:

receiving, at a router hosting an authenticator process for the host, from a
first server that provides authentication and authorization, in response to a request
for authentication for the physical connection, first data indicating at least some of
authentication and authorization information [0145];

receiving, at a DHCP relay agent process of the router, from the host, a
DHCP discovery message for discovering a logical network address for the host
[0150-0151];

generating at the DHCP relay agent process a second message that
comprises the DHCP discovery message and the first data [0150-0151]; and

sending the second message from the DHCP relay agent process to a

DHCP server that provides the logical network address for the host [0150-0151];

wherein generating the second message further comprises sending

a third message, from the authenticator process to the relay agent process,

that contains at least some of the authentication and authorization

information based on the first data [0150-0151].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freund

et al US 2003/0055962 A1 as applied to claim 1 above, and further in view of Park US

2002/0026573 A1.

As to claims 4 and 5, Freund et al does not teach that the first server is an authentication,

authorization and accounting server. Freund et al does not teach that that the first server is a

RADIUS protocol server.

Park teaches an authentication, authorization and accounting (AAA) server that uses the

RADIUS protocol [0013.

Therefore, it would have been obvious to a person having ordinary skill in the art at the

time the invention was made to have modified Freund et al so that the first server sould have

been an AAA server that utilized the RADIUS protocol.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Freund et al by the teaching of Park because the RADIUS protocol message has an authenticator field for authenticating the value of the authenticator is a value that the Foreign Agent produces arbitrarily. This value is not to be repeated; a value that has been used beforehand should not be used again. The reason why the authenticator is used as an arbitrary value is to prevent a hacker from stealing a message for malicious purposes. If the authenticator were fixed according to a message, a hacker could get a normal access-accept message from the AAA server by using the authenticator of a message produced on the basis of the commonly held secret key even though the hacker is not privy to the value of the shared secret key. Thus, the authenticator value needs to be changed every time a message is generated, thereby preventing the hacker from attacking [0013].

11. Claims 8, 31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freund et al US 2003/0055962 A1 as applied to claims 1, 26 and 27 above, and further in view of Bahl et al U.S. Patent No. 6,782,422 B1.

As to claims 8, 31 and 36, Freund et al does not teach that the request for authentication is based on an Institute of Electrical and Electronics Engineers (IEEE) 802.1x standard.

Bahl et al teaches authentication based on an Institute of Electrical and Electronics Engineers (IEEE) 802.1x standard [column 11, lines 52-58].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Freund et al so that the request for authentication was based on an Institute of Electrical and Electronics Engineers (IEEE) 802.1x standard.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Freund et al by the teaching of Bahl et al because that standard of protocol is more secure connection and higher level of authentication [column 11, lines 52-58].

Conclusion

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aravind K Moorthy
January 25, 2007

CHRISTOPHER REVAK
PRIMARY EXAMINER